(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 15 July 2004 (15.07.2004)

PCT

(10) International Publication Number WO 2004/059974 A1

(51) International Patent Classification7:

H04N 7/06

(21) International Application Number:

PCT/KR2003/002215

- (22) International Filing Date: 21 October 2003 (21.10.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 10-2002-0084462

26 December 2002 (26.12.2002)

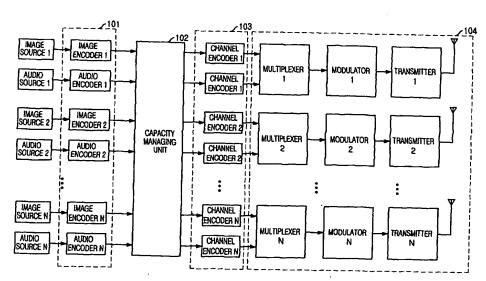
- (71) Applicant (for all designated States except US): ELEC-TRONICS AND TELECOMMUNICATIONS RE-SEARCH INSTITUTE [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejon 305-350 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHO, Sammo [KR/KR]; #106-1105, HANMAEUL APT., SONG-GANG-DONG, YUSEONG-GU, DAEJON 305-756 (KR). LEE, Hyun [KR/KR]; #2-303, GARAM VILLA, 149-13,

SINSEONG-DONG, YUSEONG-GU, DAEJON 305-345 (KR). LEE, Soo In [KR/KR]; #401-701, SEONBIMAEUL APT., SONGCHON-DONG, DAEDEOK-GU, DAEJON 306-778 (KR). Ahn, Chieteuk [KR/KR]; #208-603, EXPO APT., JEONMIN-DONG, YUSEONG-GU, DAE-JON 305-761 (KR).

- (74) Agent: SHINSUNG PATENT FIRM; Haecheon Bldg., 741-40, Yeoksam 1-dong, Kangnam-gu, Seoul 135-924 (KR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC,LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR PROVIDING DIGITAL BROADCASTING SERVICE BASED ON MULTIPLE BROADCASTING SITES AND FREQUENCY BANDS



(57) Abstract: An apparatus for transmitting data in a digital broadcasting system is disclosed. The apparatus includes: a source encoding unit for encoding data to be transmitted and generating source-coded data; a capacity managing unit for dividing the sourcecoded data into divided data for a plurality of channels in case that an available data capacity for transmitting the source-coded data does not exist in one channel but sum of available data capacities of the multiple channels can accommodate the source-coded data, and adding header information to the divided data; a channel encoding unit for encoding the divided data according to channel environment and generating channel-coded data; and a transmitting unit for multiplexing, modulating and transmitting the channelcoded data through multiple frequency bands and multiple broadcasting sites.

2004/059974 A1

WO 2004/059974 A1



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

with international search report